



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:	Symons, et al.	Patent Application
Application No.:	09/971,857	Group Art Unit: 2151
Filed:	October 4, 2001	Examiner: Divecha, K.

For: METHOD FOR DESCRIBING AND COMPARING DATA CENTER PHYSICAL
AND LOGICAL TOPOLOGIES AND DEVICE CONFIGURATIONS

APPEAL BRIEF

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I. Real Party in Interest

The assignee of the present invention is Hewlett-Packard Development Company,

L.P.

II. Related Appeals and Interferences

There are no related appeals or interferences known to the Appellants.

III. Status of Claims

Claims 1-27 are rejected. This Appeal involves Claims 1-27.

IV. Status of Amendments

All proposed amendments have been entered. An amendment subsequent to the Final Action has not been filed.

V. Summary of Claimed Subject Matter-

Independent Claims 1, 10 and 17 of the present application pertain to embodiments associated with a method for describing and comparing data center physical and logical topologies and device configurations.

As recited in Claim 1, a “method for managing a switched network infrastructure” is described. This embodiment is depicted at least in Figures 2 and 3. As shown in Figure 2 and described on page 9 lines 13-15, storing an expected network infrastructure description of a network having a switched infrastructure without requiring hubs, said network having a data center. At 320 of Figure 3, the expected network infrastructure description is compared with a current network infrastructure description, wherein said comparing detects any new devices in the network infrastructure (page 12 lines 4-11). At 350 of Figure 3, the comparing detects any changed configuration of devices in the network including hardware, software or firmware configuration changes, and any devices or device interfaces that have been removed or have failed in the network (page 14 lines 25-28). At 390 of Figure 3, a result of the comparing is output to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed (page 15 lines 26-28). At Figure 4 (page 16 lines 18-22) the result is provided in a user accessible format on said operation terminal at said data center operation for utilization by a data center operator.

As recited in Claim 10, in Figure 1, A computer system 100 including a bus 101, a memory unit 103, 104 coupled to the bus 101, and a processor 102 coupled to the bus 101 are shown. In one embodiment, the processor 102 is utilized for executing a method for managing a switched network infrastructure (page 6 line 27 through page 7 line 11). As shown in Figure 2 and described on page 9 lines 13-15, storing an expected network infrastructure description as an XML data type description of a network having a switched infrastructure without requiring hubs the network having a data center, the description comprising a device name and at least one configuration attribute for each device of the expected switched network infrastructure (page 8 lines 15-26). At 320 of Figure 3, the expected network infrastructure XML data type description is compared with a current network infrastructure XML data type description comprising a device name and at least one configuration attribute for each device of the current network infrastructure (page 12 lines 4-11). At 350 of Figure 3, the comparing detects any new devices in the network infrastructure, any changed configuration of devices in the network including hardware, software or firmware configuration changes (page 13 lines 22-30). At 370 of Figure 3, any devices or device interfaces that have been removed or have failed in the network (page 14 lines 25-28).

At 390 of Figure 3, a result of the comparing is output to an operation terminal at the data center, at 390 of Figure 3 only differences between the expected network infrastructure description and the current network infrastructure description are displayed (page 15 lines 26-28). At Figure 4 (page 16 lines 18-22) the result is provided in a user accessible format on the operation terminal at the data center operation for utilization by a data center operator.

As recited in Claim 19, a “computer-usable medium having computer-readable program code embodied therein for causing a computer system to perform a method for managing a switched network infrastructure” is described. As shown in Figure 2 and described on page 9 lines 13-15, storing an expected network infrastructure description as an XML data type description of a network having a switched infrastructure without requiring hubs the network having a data center, the description comprising a device name and at least one configuration attribute for each device of the expected switched network infrastructure (page 8 lines 15-26). At 320 of Figure 3, the expected network infrastructure XML data type description is compared with a current network infrastructure XML data type description comprising a device name and at least one configuration attribute for each device of the current network infrastructure (page 12 lines 4-11). At 350 of Figure 3, the comparing detects any new devices in the network infrastructure, any changed configuration of devices in the network including hardware, software or firmware configuration changes (page 13 lines 22-30). At 370 of Figure 3, any devices or device interfaces that have been removed or have failed in the network (page 14 lines 25-28). At 390 of Figure 3, a result of the comparing is output to an operation terminal at the data center, at 390 of Figure 3 only differences between the expected network infrastructure description and the current network infrastructure description are displayed (page 15 lines 26-28). At Figure 4 (page 16 lines 18-22) the result is provided in a user accessible format on the operation terminal at the data center operation for utilization by a data center operator.

VI. Grounds of Rejection to Be Reviewed on Appeal

1. The Specification is rejected under 35 U.S.C. § 112, first paragraph, as being related to a non-enabling disclosure.
2. Claims 1-27 are rejected under 35 U.S.C. § 112, first paragraph, as being related to a non-enabling disclosure.
3. Claims 1-5 and 8-9 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Arkko et al., (U.S. Patent 6,535,517), hereinafter referred to as "Arkko" in view of Fitzgerald et al. (5581764), hereinafter referred to as "Fitzgerald".
4. Claims 10-16, 18, 19-25 and 27 are rejected under 35 U.S.C. § 103 (a) as being obvious over Arkko in view of Aoyagi et al. (2002/0032761A1) hereinafter referred to as "Aoyagi, and in further view of Ootani et al., (2002/0135610), hereinafter referred to as "Ootani".

VII. Argument

1. Whether the specification is non-enabling under 35 U.S.C. § 112, first paragraph.

At page 4, of the Office Action dated 10/17/2006, the Specification was objected to under 35 U.S.C. § 112, first paragraph, as being non-enabling. Specifically, the rejection states “the claim recites ... storing an expected network infrastructure description of a network having a switched infrastructure without requiring hubs...” However, the disclosure merely describes storing an expected network infrastructure network description (see Specification, page 9 lines 11-25). Therefore, the above limitation presents the subject matter that was not described in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the Claimed invention.”

Appellants have reviewed the rejection and respectfully submits that the objected is improper as the Specification is, in fact, enabling for the following rationale. Appellants respectfully state that contained within the present Specification the claimed feature “... storing an expected network infrastructure description of a network having a switched infrastructure without requiring hubs...” is described in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the Claimed invention.

Specifically, on page 8 lines 16-26 of the present Specification states “FIG. 2 represents a network having a data center where central control over the network can be maintained. In one embodiment, the physical environment 250 relies upon a switched network environment. In a switched network, the hubs used to couple devices in the network are replaced with switches. Unlike hubs which share network segments, switches provide a segment for each device connected to it. By replacing the hubs with switches, devices connected to the network can be physically isolated and/or located by the data center operators because there is a one-to-one mapping between a given device and the switch port to which it is connected” (emphasis added).

Therefore, Appellants respectfully submit that the Specification is enabling and as such the objection to the Specification under 35 U.S.C. § 112, first paragraph, as being non-enabling is incorrect and should be withdrawn.

2. Whether Claims 1-27 are related to a non-enabling disclosure under 35 U.S.C. § 112, first paragraph.

Claims 1-27 are rejected under 35 U.S.C. § 112, first paragraph, as being related to a non-enabling disclosure. At page 4, of the Office Action dated 10/17/2006, Claims 1-27 are rejected under 35 U.S.C. § 112, first paragraph, as being non-enabling. Specifically, the rejection states “Claims 1-27 are rejected under 35 U.S.C. § 112, first paragraph, for the same reason as set forth in objected specification above.”

Appellants have reviewed the rejection and respectfully submits that the rejection of Claims 1-27 under 35 U.S.C. § 112, first paragraph, as being related to a non-enabling disclosure is improper as the Specification is, in fact, enabling. Appellants respectfully state that contained within the present Specification the claimed feature “... storing an expected network infrastructure description of a network having a switched infrastructure without requiring hubs...” is described in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the Claimed invention.

Specifically, on page 8 lines 16-26 of the present Specification states “FIG. 2 represents a network having a data center where central control over the network can be maintained. In one embodiment, the physical environment 250 relies upon a switched network environment. In a switched network, the hubs used to couple devices in the network are replaced with switches. Unlike hubs which share network segments, switches provide a segment for each device connected to it. By replacing the hubs with switches, devices connected to the network can be physically isolated and/or located by the data center operators because there is a one-to-one mapping between a given device and the switch port to which it is connected” (emphasis added).

Therefore, Appellants respectfully submit that the rejection of Claims 1-27 under 35 U.S.C. § 112, first paragraph, is incorrect and should be withdrawn.

3. Whether Claims 1-5 and 8-9 are unpatentable under 35 U.S.C. § 103(a) by Arkko in view of Fitzgerald.

Claims 1-5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arkko in view of Fitzgerald. Appellants have reviewed the cited references and respectfully submit that the embodiments of the present invention as recited in Claims 1-5 and 8-9 are patentable over Arkko in view of Fitzgerald, for at least the following rationale.

At page 6, the Office Action rejected Claims 1-5 and 8-9 under 35 U.S.C. § 103 (a) as being unpatentable over Arkko in view of Fitzgerald. Appellants respectfully submit the rejection is improper as the references are not sufficient to render the claims *prima facie* obvious.

Appellants have reviewed the cited references and respectfully submits that the embodiments of the present invention as recited in Claims 1-5 and 8-9 are not unpatentable over unpatentable over Arkko in view of Fitzgerald for the following rationale.

Appellants respectfully submit that Independent Claim 1 recites the features “A method for managing a switched network infrastructure comprising:

storing an expected network infrastructure description of a network having a switched infrastructure without requiring hubs, said network having a data center...” (emphasis added).

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). (MPEP 2143.03).

On page 6 of the present Office Action, the Examiner states that Arkko discloses the feature storing an expected network infrastructure description of a network having a switched infrastructure, said network having a data center. However, the Examiner does not show, and Appellants do not understand, Arkko to teach or suggest the claimed feature storing an expected network infrastructure description of a network having a switched infrastructure without requiring hubs, said network having a data center (emphasis added).

In other words, the rejection of Claims 1-5 and 8-9 does not provide any teaching or suggestion of the claimed features “storing an expected network infrastructure description of

a network having a switched infrastructure without requiring hubs” (emphasis added). Moreover, the Examiner does not rely on any other references, e.g., Aoyagi, to teach or suggest the claimed features. As such, prima facie obviousness is not established. Therefore, the rejection under 35 U.S.C. § 103 (a) is improper as the references are not sufficient to render the claims *prima facie* obvious.

For this reason, Appellants respectfully submit that Arkko in view of Aoyagi does not teach or render obvious the features of Independent Claim 1 and as such Claim 1 is improperly rejected and is, in fact, in condition for allowance. Moreover, Claims 2-5 and 8-9 are dependent on Claim 1 and recite further features of the Claimed invention. In addition, Claims 6 and 7 are also dependent on Independent Claim 1 and, as such, are also in condition for allowance.

Furthermore, Appellants respectfully agree with the Examiner statement on page 7 lines 9-10 that “Arkko does not disclose the process of detecting any changed configurations of devices in the network.” Furthermore, Appellants do not understand Arkko to teach or suggest detecting any changed configuration of devices in the network. Moreover, Appellants do not understand Arkko to teach or render obvious the further feature of detecting changes in device configuration in the network including hardware, software or firmware configuration changes (emphasis added).

Appellants have reviewed Fitzgerald and do not understand Fitzgerald to overcome the shortcomings of Arkko. Specifically, Appellants understand Fitzgerald to teach configuration of a desktop computer and specifically, should have and already have configurations of the software thereon. Appellants do not understand Fitzgerald to teach or suggest detecting any changed configuration of devices in the network including hardware, software or firmware configuration changes (emphasis added).

For this reason, Appellants respectfully submit that Arkko in view of Fitzgerald do not teach or render obvious the features of Independent Claim 1 and as such Claim 1 is in condition for allowance.

Furthermore, Appellants have reviewed Arkko and do not understand Arkko to teach or render obvious the feature of “outputting a result of said comparing to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed; and providing said result in a user accessible format on said operation terminal at said data center operation for utilization by a data center operator” (emphasis added).

Appellants understand Arkko to combine dynamic connectivity information with expected connectivity information to enable the detection of faulty devices. For example, Appellants understand Arkko to teach that when a deviation from expected connectivity occurs, the deviation can be detected and responses taken either to avoid attempting to use a faulty device and/or to notify a network operator of the faulty device. That is, Appellants understand Arkko to notify a network operator of a faulty device based on an expected network topology (e.g., the number and/or location of the processing devices) that is initially specified.

However, Appellants do not understand Arkko to teach or render obvious notifying a network operator of changes that are not faulty devices. That is, Appellants do not understand Arkko to teach outputting a result of said comparing to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed... wherein the detected devices may new devices in the network infrastructure, any changed configuration of devices in the network including hardware, software or firmware configuration changes, and any devices or device interfaces that have been removed or have failed in the network.

Appellants have reviewed Fitzgerald and do not understand Fitzgerald to overcome the shortcomings of Arkko. Specifically, Appellants understand Fitzgerald to teach away from a data center. Appellants understand Fitzgerald to teach that different departments often have different needs, and the challenge of centralized management increases as individual users within departments are able to specify their individual needs with greater particularity. Thus, the managers of networks of distributed desktop computers increasingly are being called upon to support a wide range of end-user involvement with the desktop, most notably the productivity enhancements of personalized desktop computing.

In contrast, the claimed features clearly teach the outputting a result of said comparing to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed; and providing said result in a user accessible format on said operation terminal at said data center operation for utilization by a data center operator.” (Emphasis added)

For this additional reason, Appellants respectfully submit that Arkko in view of Fitzgerald do not teach or render obvious the features of Independent Claim 1 and as such Claim 1 is in condition for allowance.

With respect to Claims 2-5 and 8-9, Appellants respectfully point out that Claims 2-5 and 8-9 depend from the allowable Claim 1 and recites further features of the present claimed invention. Therefore, Appellants respectfully state that Claims 2-5 and 8-9 are allowable as pending from an allowable base Claim.

With respect to Claims 6-7, Appellants respectfully point out that Claims 6-7 depend from the allowable Claim 1 and recites further features of the present claimed invention. Therefore, Appellants respectfully state that Claims 6-7 are allowable as pending from an allowable base Claim.

In summary, Appellants respectfully submit that the Examiner's rejections of the Claims are improper as the rejection of Claims 1-9 does not satisfy the requirements of a *prima facie* case of obviousness as claim limitations are not met by the cited reference and there is no suggestion or motivation to combine the references. Accordingly, Appellants respectfully submit that the rejection of Claims 1-9 under 35 U.S.C. §103(a) is improper and should be reversed.

4. Whether Claims 10-16, 18, 19-25 and 27 are unpatentable under 35 U.S.C. § 103(a) by Arkko in view of Aoyagi and in further view of Ootani.

Claims 10-16, 18, 19-25 and 27 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Arkko in view of Aoyagi and in further view of Ootani. Appellants have reviewed the cited references and respectfully submit that the embodiments of the present invention as recited in Claims 10-16, 18, 19-25 and 27 are patentable over Arkko in view of Aoyagi and in further view of Ootani, for at least the following rationale.

Claim 19 (and similarly Claim 10) includes the feature “storing an expected network infrastructure description as an XML data type description of a network having a switched infrastructure without requiring hubs, said network having a data center” (emphasis added).

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). (MPEP 2143.03).

On page 12 of the present Office Action, the Examiner states that Arkko discloses the feature storing an expected network infrastructure description of a network having a switched infrastructure, said network having a data center. However, the Examiner does not show, and Appellants do not understand, Arkko to teach or suggest the claimed feature storing an expected network infrastructure description of a network having a switched infrastructure without requiring hubs, said network having a data center (emphasis added).

In other words, the rejection of Claims 10-16, 18, 19-25 and 27 does not provide any teaching or suggestion of the claimed features “storing an expected network infrastructure description of a network having a switched infrastructure without requiring hubs” (emphasis added). Moreover, the Examiner does not rely on any other references, e.g., Aoyagi and Ootani, to teach or suggest the claimed features. As such, prima facie obviousness is not established. Therefore, the rejection of Claims 10-16, 18, 19-25 and 27 under 35 U.S.C. § 103 (a) is improper as the references are not sufficient to render the claims *prima facie* obvious.

For this reason, Appellants respectfully submit that Arkko in view of Aoyagi and in further view of Ootani does not teach or render obvious the features of Independent Claims 10 and 19 and as such Claims 10 and 19 are improperly rejected and are, in fact, in condition

for allowance. Moreover, Claims 1-16, 18, 20-25 and 27 are dependent on Claims 10 and 19 and recite further features of the Claimed invention.

Appellants respectfully agree with the Examiner statement on page 13 lines 9-10 that “Arkko does not disclose the process of detecting any changed configurations of devices in the network”. Furthermore, Appellants do not understand Arkko to teach or suggest detecting any changed configuration of devices in the network. Moreover, Appellants do not understand Arkko to teach or render obvious the further feature of detecting changes in device configuration in the network including hardware, software or firmware configuration changes (emphasis added).

Appellants have reviewed both Aoyagi and Ootani and do not understand Aoyagi and/or Ootani to overcome the shortcomings of Arkko. Specifically, Appellants do not understand Aoyagi and Ootani either alone or in conjunction to teach or anticipate the features of detecting any changed configuration of devices in the network including hardware, software or firmware configuration changes (emphasis added).

For this reason, Appellants respectfully submit that Arkko in view of Aoyagi and in further view of Ootani do not teach or render obvious the features of Independent Claims 10 and 19 and as such Claim 10 and 19 are in condition for allowance.

Furthermore, Appellants have reviewed Arkko and do not understand Arkko to teach or render obvious the feature of “outputting a result of said comparing to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed; and providing said result in a user accessible format on said operation terminal at said data center operation for utilization by a data center operator.” (Emphasis added)

Appellants understand Arkko to combine dynamic connectivity information with expected connectivity information to enable the detection of faulty devices. For example, Appellants understand Arkko to teach that when a deviation from expected connectivity occurs, the deviation can be detected and responses taken either to avoid attempting to use a faulty device and/or to notify a network operator of the faulty device. That is, Appellants understand Arkko to notify a network operator of a faulty device based on an expected network topology (e.g., the number and/or location of the processing devices) that is initially specified.

However, Appellants do not understand Arkko to teach or render obvious notifying a network operator of changes that are not faulty devices. That is, Appellants do not understand Arkko to teach outputting a result of said comparing to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed... wherein the detected devices may new devices in the network infrastructure, any changed configuration of devices in the network including hardware, software or firmware configuration changes, and any devices or device interfaces that have been removed or have failed in the network.

Appellants have reviewed Aoyagi and Ootani and do not understand Aoyagi and Ootani to overcome the shortcomings of Arkko. Specifically, Appellants understand Aoyagi and Ootani to remain silent on the use of a data center, much less the features of outputting a result of said comparing to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed. Wherein the detected devices may new devices in the network infrastructure, any changed configuration of devices in the network including hardware, software or firmware configuration changes, and any devices or device interfaces that have been removed or have failed in the network

For this additional reason, Appellants respectfully submit that Arkko in view of Aoyagi and in further view of Ootani do not teach or render obvious the features of Independent Claims 10 and 19 and as such Claim 10 and 19 are in condition for allowance.

With respect to Claims 11-16 and 18, Appellants respectfully point out that Claims 11-16 and 18 depend from the allowable Claim 10 and recites further features of the present claimed invention. With respect to Claims 20-25 and 27, Appellants respectfully point out that Claims 20-25 and 27 depend from the allowable Claim 19 and recites further features of the present claimed invention. Therefore, Appellants respectfully state that Claims 11-16, 18, 20-25 and 27 are allowable as pending from allowable base Claims.

With respect to Claims 17 and 26, Appellants respectfully point out that Claim 17 depends from the allowable Claim 10 and recites further features of the present claimed invention. With respect to Claim 26, Appellants respectfully point out that Claim 26 depends from the allowable Claim 19 and recites further features of the present claimed invention. Therefore, Appellants respectfully state that Claims 17 and 26 are allowable as pending from allowable base Claims.


In summary, Appellants respectfully submit that the Examiner's rejections of the Claims are improper as the rejection of Claims 10-18, 19- 27 does not satisfy the requirements of a *prima facie* case of obviousness as claim limitations are not met by the cited reference and there is no suggestion or motivation to combine the references. Accordingly, Appellants respectfully submit that the rejection of Claims 10-18 and 19-27 under 35 U.S.C. §103(a) is improper and should be reversed.

Conclusion

Appellants respectfully request that the rejection of Claims 1-27 be reversed. The Appellants wish to encourage the Examiner or a member of the Board of Patent Appeals to telephone the Appellants' undersigned representative if it is felt that a telephone conference could expedite prosecution.

Dated: 6/11/, 2007

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VIII. Appendix - Clean Copy of Claims on Appeal

1. (Previously Presented) A method for managing a switched network infrastructure comprising:
 - storing an expected network infrastructure description of a network having a switched infrastructure without requiring hubs, said network having a data center;
 - comparing said expected network infrastructure description with a current network infrastructure description, wherein said comparing detects any new devices in the network infrastructure, any changed configuration of devices in the network including hardware, software or firmware configuration changes, and any devices or device interfaces that have been removed or have failed in the network;
 - outputting a result of said comparing to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed; and
 - providing said result in a user accessible format on said operation terminal at said data center operation for utilization by a data center operator.
2. (Original) The method for managing a network infrastructure as recited in Claim 1, wherein said network infrastructure is a switched network.
3. (Previously Presented) The method for managing a network infrastructure as recited in Claim 1, wherein said method further comprises implementing a change of said network infrastructure with a configuration agent and storing said change in said expected network infrastructure description.
4. (Original) The method for managing a network infrastructure as recited in Claim 1, wherein said comparing further comprises collecting said current network infrastructure description.
5. (Original) The method for managing a network infrastructure as recited in Claim 4, wherein said collecting of said current network infrastructure description further comprises using agents to collect said current network infrastructure description.
6. (Original) The method for managing a network infrastructure as recited in Claim 1, wherein said comparing further comprises converting said expected network infrastructure description into an expected network infrastructure graphical description and converting said

current network infrastructure description into a current network infrastructure graphical description.

7. (Original) The method for managing a network infrastructure as recited in Claim 6, wherein said comparing further comprises comparing said expected network infrastructure graphical description with said current network infrastructure graphical description.

8. (Original) The method for managing a network infrastructure as recited in Claim 1, wherein said outputting further comprises:

- outputting a list of devices from said expected network infrastructure description which are missing from said current network infrastructure description;

- outputting a list of devices from said current network infrastructure description having a different configuration from the configuration of said devices in said expected network infrastructure description; and

- outputting a list of devices from said current network infrastructure description which are not described in said expected network infrastructure description.

9. (Original) The method for managing a network infrastructure as recited in Claim 1, wherein said outputting further comprises:

- outputting a message stating that said expected network infrastructure description and said current network infrastructure description are identical.

10. (Previously Presented) A computer system comprising:

- a bus;

- a memory unit coupled to said bus; and

- a processor coupled to said bus, said processor for executing a method for managing a switched network infrastructure comprising:

- storing an expected network infrastructure description as an XML data type description of a network having a switched infrastructure without requiring hubs, said network having a data center;

- comparing said expected network infrastructure XML data type description with a current network infrastructure XML data type description, wherein said comparing detects any new devices in the network infrastructure, any changed configuration of devices in the network including hardware, software or firmware configuration changes, and any devices or device interfaces that have been removed or have failed in the network;

outputting a result of said comparing to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed; and providing said result in a user accessible format on said operation terminal at said data center operation for utilization by a data center operator.

11. (Original) The computer system as recited in Claim 10, wherein said network infrastructure is a switched network infrastructure.
12. (Previously Presented) The computer system as recited in Claim 10, wherein said method further comprises implementing a change of said network infrastructure with a configuration agent and storing said change in said expected network infrastructure description.
13. (Original) The computer system as recited in Claim 10, wherein said comparing further comprises collecting said current network infrastructure description.
14. (Original) The computer system as recited in Claim 13, wherein said collecting of said current network infrastructure description further comprises using agents to collect said current network infrastructure description.
15. (Original) The computer system as recited in Claim 10, wherein said comparing further comprises converting said expected network infrastructure description into an expected network infrastructure graphical description and converting said current network infrastructure description into a current network infrastructure graphical description.
16. (Original) The computer system as recited in Claim 15, wherein said comparing further comprises comparing said expected network infrastructure graphical description with said current network infrastructure graphical description.
17. (Original) The computer system as recited in Claim 10, wherein said outputting further comprises:
 - outputting a list of devices from said expected network infrastructure description which are missing from said current network infrastructure description;
 - outputting a list of devices from said current network infrastructure description having a different configuration from the configuration of said devices in said expected network infrastructure description; and

outputting a list of devices from said current network infrastructure description which are not described in said expected network infrastructure description.

18. (Original) The computer system as recited in Claim 10, wherein said outputting further comprises:

outputting a message stating that said expected network infrastructure description and said current network infrastructure description are identical.

19. (Previously Presented) A computer-usable medium having computer-readable program code embodied therein for causing a computer system to perform a method for managing a switched network infrastructure comprising:

storing an expected network infrastructure description as an XML data type description of a network having a switched infrastructure without requiring hubs, said network having a data center, said description comprising a device name and at least one configuration attribute for each device of said expected switched network infrastructure;

comparing said expected network infrastructure XML data type description with a current network infrastructure XML data type description comprising a device name and at least one configuration attribute for each device of said current network infrastructure, wherein said comparing detects any new devices in the network infrastructure, any changed configuration of devices in the network including hardware, software or firmware configuration changes, and any devices or device interfaces that have been removed or have failed in the network;

outputting a result of said comparing to an operation terminal at said data center, wherein only differences between said expected network infrastructure description and said current network infrastructure description are displayed; and

providing said result in a user accessible format on said operation terminal at said data center operation for utilization by a data center operator.

20. (Original) The computer-usable medium as recited in Claim 19, wherein said network infrastructure is a switched network infrastructure.

21. (Previously Presented) The computer-usable medium as recited in Claim 19, wherein said method further comprises implementing a change of said network infrastructure with a configuration agent and storing said change in said expected network infrastructure description.

22. (Original) The computer-usable medium as recited in Claim 19, wherein said comparing further comprises collecting said current network infrastructure description.

23. (Original) The computer-usable medium as recited in Claim 22, wherein said collecting of said current network infrastructure description further comprises using agents to collect said current network infrastructure description.

24. (Original) The computer-usable medium as recited in Claim 19, wherein said comparing further comprises converting said expected network infrastructure description into an expected network infrastructure graphical description and converting said current network infrastructure description into a current network infrastructure graphical description.

25. (Original) The computer-usable medium as recited in Claim 24, wherein said comparing further comprises comparing said expected network infrastructure graphical description with said current network infrastructure graphical description.

26. (Original) The computer-usable medium as recited in Claim 19, wherein said outputting further comprises:

outputting a list of devices from said expected network infrastructure description which are missing from said current network infrastructure description;

outputting a list of devices from said current network infrastructure description having a different configuration from the configuration of said devices in said expected network infrastructure description; and

outputting a list of devices from said current network infrastructure description which are not described in said expected network infrastructure description.

27. (Original) The computer-usable medium as recited in Claim 19, wherein said outputting further comprises:

outputting a message stating that said expected network infrastructure description and said current network infrastructure description are identical.

IX. Evidence Appendix

No evidence is herein appended.

X. Related Proceedings Appendix

No related proceedings.